

U.S. Patent Application Serial No. **09/926,260**
Response filed September 20, 2004
Reply to OA dated May 19, 2004

REMARKS

Claims 8 and 10-21 are currently pending in this application. Claims 1-7 and 9 have been canceled. Claims 10-21 have been newly added.

Claims 10-21 are product by process claims that correspond to canceled claims 1-7 and 9.

The applicants respectfully submit that no new matter has been added.

Claims 1-3, 5-7 and 9 are rejected under 35 USC §112, second paragraph, as being indefinite.

Claims 1-3, 5-7 and 9 have been canceled making this rejection now moot.

Claims 1-8 are rejected under 35 USC §102(b) as being anticipated by Matabayas (WO 98/29499).

Claims 1-7 have been canceled.

In the process according to Claim 8 and claims dependent thereon, a dispersion of layered phyllosilicate and water is mixed with a component having low polymerization degree and then polymerization is carried out, while maintaining the condition of the layered phyllosilicate dispersed to a state of unit layers as it is.

On the other hand, when a polyester resin composition is prepared by the process, wherein layered phyllosilicate is dispersed in water and **then dried, thereby mixed in the powder form with**

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the component having low polymerization degree of the thermoplastic polyester resin, layered phyllosilicate apparently exists as large agglomerates in the resin composition. Therefore, the obtained polyester resin composition is inferior in physical properties such as flexural property and mold releasing ability to the polyester resin composition obtained according to the process of the claimed invention.

In the attached Declaration, step (B) is a step for drying the dispersion to obtain a power of layered phyllosilicate. This is similar to the preferred solid state polymerization described on p.14-19 of Matabayas. Solid state polymerization is clearly different than steps (A), (B) and (C) of claim 8.

The Office Action states, "MATABAYAS clearly states that both treated or untreated platelets can be dispersed in the dispersing medium such as water and glycols prior to or during contact with polyester components such as monomers..." Actually, in the Examples and Comparative Examples of Matabayas, layered phyllosilicate is dispersed in water in advance. However, layered phyllosilicate is subsequently dried and then mixed **in the powder form** with the component having low polymerization degree of the thermoplastic polyester resin.

Thus, Matayabas does not specifically disclose the preparation process which comprises mixing a dispersion of layered phyllosilicate and water with pre-polymer, and therefore the effect obtained therefrom is not even suggested in Matayabas.

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The Declaration empirically shows the difference between solid state polymerization and that of the invention as now claimed (see p.9-10).

The resin compositions of Claims 10-21 are characterized by being prepared by the specific preparation process of Claim 8. Layered phyllosilicate are fully dispersed in the resin composition and therefore the obtained resin composition has excellent physical properties such as flexural property and mold releasing ability.

In light of the Declaration, it is shown that the disclosure of Matayabas cannot logically anticipate the claimed invention. It is respectfully requested that the rejection be withdrawn.

Claims 1-3, 8 and 9 are rejected under 35 USC §103(a) as being unpatentable over Beall (U.S. Patent No. 5,760,121).

Claims 1-7 and 9 have been canceled.

Beall discloses intercalates in which layered phyllosilicate is intercalated with polymer and a composite material comprising the intercalates and matrix polymer.

The Office Action states that "untreated layered phyllosilicate" is used in Beall. However, the polymer intercalated into layered phyllosilicate is used as a swelling agent and therefore layered phyllosilicate *is* substantially treated. So, Beall is different from the claimed invention which requires untreated layered phyllosilicate.

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Also, in Beall, a composite material is prepared by the process comprising combining intercalated platelets with the thermoplastic or thermosetting polymer, and heating the thermoplastic or thermosetting polymer sufficiently to provide for flow of the thermoplastic or thermosetting polymer and delamination of the platelets of the phyllosilicate; and dispersing of the delaminated platelets throughout the matrix polymer (Claim 17). That is, the preparation process of a composite material in Beall comprises mixing matrix polymer and layered phyllosilicate, which is considerably different from the process of the claim 8.

In light of this showing it is respectfully requested that the rejection be withdrawn.

Claims 4-7 are rejected under 35 USC §103(a) as being unpatentable over Beall (U.S. Patent No. 5,760,121) as applied to claims 1-3, 8 and 9 above and further in view of Matabayas (WO98/29499).

Claims 4-7 have been canceled making this rejection now moot.

Claim 7 is rejected under 35 USC §103(a) as being unpatentable over Matabayas (WO98/29499) in view of Ohara (JP 9-143359).

Claim 7 has been canceled making this rejection now moot.

Claims 4-7 are rejected under 35 USC §103(a) as being unpatentable over Beall (U.S. Patent No. 5,760,121) in view of Ohara (JP 9-143359).

Claim 7 has been canceled making this rejection now moot.

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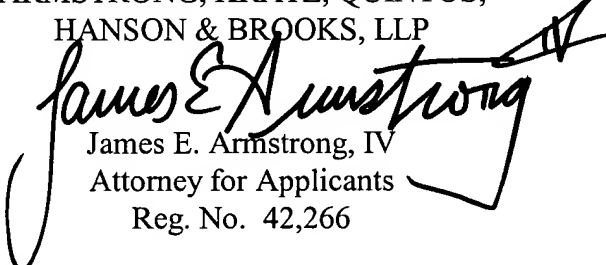
In view of the aforementioned amendments and accompanying remarks, the claims, are in condition for allowance, which action, at an early date, is requested.

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact Applicants undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

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Enclosures: Declaration Under 37 CFR 1.132
Petition for Extension of Time

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